

**What is claimed is;**

1. deleted
2. An etching method for plasma-etching an  $\text{SiO}_2$  film layer covering an  $\text{SiN}_x$  film layer formed at a workpiece placed inside an air-tight processing chamber by raising to plasma a processing gas induced into said processing chamber, comprising;
  - a first step in which said  $\text{SiO}_2$  film layer is etched by using a mixed gas containing at least  $\text{C}_4\text{F}_8$  and  $\text{CO}$  as said processing gas; and
  - a second step in which a switch is made to a mixed gas containing at least  $\text{C}_4\text{F}_8$  and  $\text{CH}_2\text{F}_2$  to be used as said processing gas to etch said  $\text{SiO}_2$  film layer immediately before said  $\text{SiN}_x$  film layer becomes exposed.
3. An etching method for plasma-etching an  $\text{SiO}_2$  film layer covering an  $\text{SiN}_x$  film layer formed at a workpiece placed inside an air-tight processing chamber by raising to plasma a processing gas induced into said processing chamber, comprising;
  - a first step in which said  $\text{SiO}_2$  film layer is etched by using a mixed gas containing at least  $\text{C}_4\text{F}_8$  and  $\text{CO}$  as said processing gas; and
  - a second step in which a switch is made to a mixed gas containing at least  $\text{C}_4\text{F}_8$  and  $\text{CH}_2\text{F}_2$  to be used as said processing gas to etch said  $\text{SiO}_2$  film layer immediately after said  $\text{SiN}_x$  film layer becomes exposed.
4. deleted
5. deleted

6. deleted

7. deleted

8. (amended) An etching method according to claim 2 or 3, wherein;

said mixed gas containing at least  $C_4F_8$  and  $CH_2F_2$  further contains an inert gas.

9. An etching method according to claim 2 or 3, wherein;

said mixed gas containing at least  $C_4F_8$  and CO further contains an inert gas.